1270.0.55.004 - Australian Statistical Geography Standard (ASGS): Volume 4 - Significant Urban Areas, Urban Centres and Localities, Section of State, July 2016

Latest ISSUE Released at 11:30 AM (CANBERRA TIME) 09/10/2017

Summary

Overview

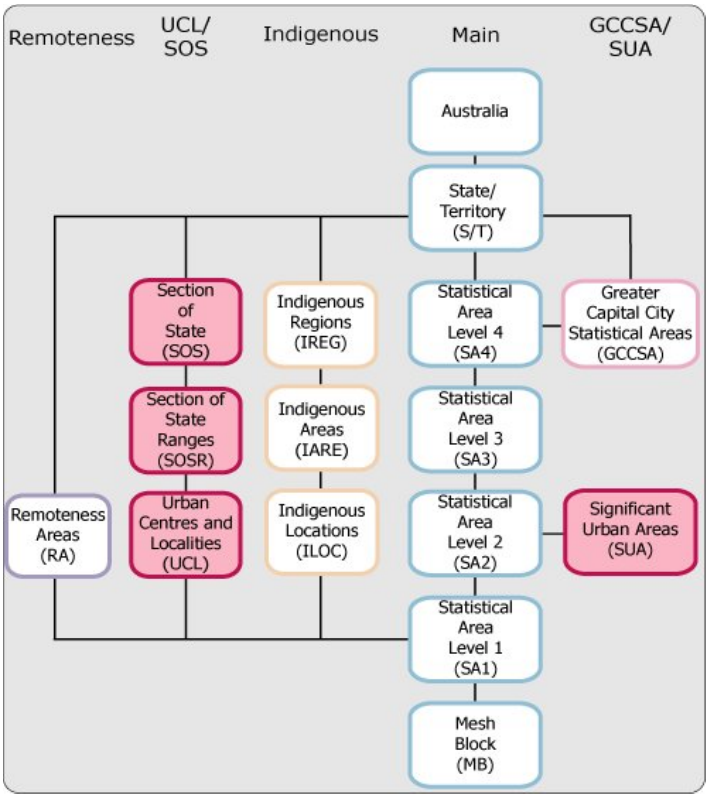
OVERVIEW

This publication updates the Urban Centres and Localities (UCL), Section of State (SOS) / Section of State Range (SOSR) and Significant Urban Areas (SUA) within the Australian Statistical Geography Standard (ASGS). These regions provide definitions and classifications of urban areas within Australia for the purpose of statistical analysis.

The ASGS provides a framework of statistical areas used by the Australian Bureau of Statistics (ABS) and other organisations to enable the publication of statistics that are comparable and geospatially integrated. The ASGS provides users with a coherent set of standard areas that they can use to access, visualise and analyse statistics.

The ASGS is split into two parts, ABS Structures and Non ABS Structures. The ABS structures are areas that the ABS designs specifically for outputting statistics. The UCLs, SOS, SOSR and SUAs are part of the ABS Structures and their relationship to other ABS statistical areas is shown in diagram 1 below.

Diagram 1: ASGS ABS Structures



This is the fourth of five volumes that make up the 2016 ASGS. The 2016 edition of the ASGS is the second edition of the ASGS, updating the first edition released in 2011. This second edition includes changes to statistical areas to account for growth and change.

The 2016 ASGS will be used for the 2016 Census of Population and Housing and progressively introduced into other ABS data collections. The ABS encourages the use of the ASGS by other organisations to improve the comparability and usefulness of statistics generally, and in analysis and visualisation of statistical and other data.

Different Definitions of Urban

DIFFERENT DEFINITIONS OF URBAN

The Australian Statistical Geography Standard (ASGS) defines and classifies urban areas in several different ways to make a wide range of statistical data available for this important geographic measure.

Urban Centres and Localities (UCLs) provide the most detailed definition of individual urban areas as small as 200 people. They are defined using Statistical Areas Level 1 (SA1s) that meet objective ‘Urban Character’ criteria, including Census population and dwelling density measures. The low population size of some areas means that only Census data is available for the UCLs.

Section of State (SOS) and Section of State Range (SOSR) group the UCLs into broad classes based on population size within each State and Territory. This enables statistical comparisons of differently sized urban centres and the balancing 'rural areas'. For example, what are the differences between people living in Major Cities, with over 100,000 people, compared to people living in rural areas, defined by the rural balance? By grouping the UCLs into these broad classes it is possible to release a broader range of data on this classification.

The Significant Urban Areas (SUAs) represent significant towns and cities of 10,000 people or more. They are based on the UCLs but are defined by the larger Statistical Areas Level 2 (SA2s) which mean they often include some adjacent rural residential settlement. Using SA2s ensures a wider range of more regularly updated data is available for these areas, compared to UCLs where only Census data is available.

The Greater Capital City Statistical Areas (GCCSA) provide the broadest urban extent and are released as part of the Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital City Statistical Areas (cat no. 1270.0.55.001). These are designed to reflect the functional extent of each of the eight State and Territory capital cities. This extends beyond the built up edge of the city to include the people who regularly socialise, shop or work within the city, but live in towns and rural areas surrounding the capital city. They are built from Statistical Areas Level 4 (SA4s), which ensures a wide range of ABS data is available, including labour force data.

ABS Maps can be used to compare these different structures to show the different ways that ‘urban extent’ can be measured depending on your needs and the data available.

Summary Table

SUMMARY TABLE

The number of separate areas in the Urban Centres and Localities (UCLs), Section of State (SOS), Section of State Range (SOSR) and Significant Urban Areas (SUAs) are shown in table 1.

TABLE 1: SUMMARY OF UCL, SOS/SOSR AND SUA UNITS FOR 2016

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	OT (a)	Aust.
UCL (b)	536	353	420	176	182	100	73	5	8	1853
SOSR (b)	12	12	13	10	11	11	9	5	6	89
SOS (c)	6	6	6	6	6	6	6	5	5	52
SUA (d)	40	23	19	9	12	6	3	2	1	110

(a) Other Territories (OT) includes the Territories of Cocos (Keeling) Islands, Christmas Island, Jervis Bay and Norfolk Islands.

(b) Includes records for Remainder of State/Territory, No usual address and Migratory – Offshore – Shipping for each State and Territory.

(c) Includes records for No usual address and Migratory – Offshore – Shipping for each State and Territory.

(d) SUAs crossing S/T borders are included in each of the S/T totals. Each is counted only once in the Australia total.

Related Material

RELATED MATERIAL

The following supporting material is available with this release for the Urban Centre and Locality (UCL), Section of State (SOS) / Section of State Range (SOSR) and Significant Urban Area (SUA) structures:

- digital boundaries for the regions described in this publication are available from the Downloads tab above – formats include: ESRI Shape files, MapInfo Interchange Format files, MapInfo TAB files and Open Geospatial Consortium GeoPackage
- ABS Geospatial Web Services User Guide
- codes, labels and hierarchies for all the regions described in this publication are in ‘.csv’ format, also in the Downloads tab above
- association files in ‘.csv’ format describe changes in these geographies
- online mapping tool to view and compare the ASGS regions, ABS Maps.

The 2016 ASGS including supporting material, digital boundaries, codes, labels, hierarchies, maps and correspondences have been released progressively since July 2016. The last publication will be released in early 2018. All of these products will be

available from the ABS website at https://www.abs.gov.au/geography.

Urban Centre and Locality (UCL)

URBAN CENTRE AND LOCALITY (UCL)

PURPOSE OF UCLs

The Urban Centres and Localities (UCLs) represent areas of concentrated urban development with populations of 200 people or more. These areas of urban development are primarily identified using objective dwelling and population density criteria using data from the 2016 Census.

The UCLs are designed for the analysis of statistical data, in particular data from the Census of Population and Housing. The 200 minimum population size is set to enable users to access cross classified Census data for these areas without the resulting counts becoming too small for use.

UCLs are not an official definition of towns. There are many small towns with populations less than 200 people that are not included as UCLs. These small towns and other urban areas are represented by State Government Gazetted Localities. The ABS provides Census data on these localities through the State Suburbs (SSCs) which are part of the Australian Statistical Geography Standard (ASGS) Volume 3: Non ABS Structures.

Design of UCL

DESIGN OF UCL

Urban Centres and Localities (UCLs) are defined using Statistical Areas Level 1 (SA1s) that meet objective ‘urban’ density or infrastructure / land use criteria. The criteria for defining Localities within the UCL structure are different to those used in defining the Urban Centres.

Areas not defined by Urban Centres or Localities are considered to be ‘rural’ for the purpose of statistical analysis. UCLs cover the whole of Australia without gaps or overlaps in combination with this Rural Balance. UCLs can cross State or Territory (S/T) boundaries. In these cases the UCLs are split into two parts along the State or Territory boundaries which allows the UCLs to aggregate up to State or Territory.

URBAN CENTRE DESIGN CRITERIA

Urban Centres are defined by grouping together adjacent SA1s that are considered to be ‘urban’ using the following criteria.

SA1s are considered to be ‘urban' if they:

- have an Urban Mesh Block* population greater or equal to 45% of the total population^ AND a dwelling density greater or equal to 45 dwellings per square (sq) Kilometre (km); OR
- have a population density greater or equal to 100 persons per sq km AND a dwelling density greater or equal to 50 dwellings per sq km; OR
- have a population density greater or equal to 200 person per sq km.

*An Urban Mesh Block is defined as a Mesh Block with a population density of 200 persons or more per sq km.
^The population and dwelling figures used for these criteria are 'Place of Usual Residence' from the 2016 Census of Population and Housing.

SA1s that are adjacent to these ‘urban’ SA1s and contain substantial ‘urban infrastructure/ land use’, as defined below, are also considered to be ‘urban’ SA1s. SA1s meeting at a point are not considered to be adjacent.

When a cluster of ‘urban’ SA1s has a total population of 1,000 persons or more it is defined as a separate Urban Centre. Clusters of ‘urban’ SA1s with total populations between 200 and 999 are considered to be Localities (see below).

In defining an Urban Centre, all adjacent urban SA1s are included. Nearby ‘urban’ SA1s, that are located within 500 metres road distance, and that could be regarded as part of the Urban Centre, are also included. These nearby SA1s can be linked to the larger Urban Centre through including adjoining ‘non-urban’ SA1s.

Areas completely surrounded by ‘urban’ SA1s are also classified as ‘urban’. This includes areas that are bounded by an Urban Centre and a shore or coastline.

Both SA1s and Mesh Blocks are designed to reflect the edge of urban areas. However, there are some cases where the other design criteria for these areas, such as population size or alignment to gazetted Suburb and Locality boundaries, may compromise this. As a result some SA1s may contain urban settlement or infrastructure but not meet the ‘urban’ criteria. In these cases discretion has been applied, factoring in the overall design of the Urban Centre, and the affected SA1s included into an adjacent Urban Centre.

Urban Centres with a population of 20,000 people or more are combined with any other Urban Centre within 3km. This distance is

calculated along sealed roads between the edge of the closest Urban Mesh Blocks, or adjoining urban infrastructure and land use, within each Urban Centre. SA1s containing or bordering the shortest road route between the two clusters are also included, unless they severely compromise the Urban Centre design. Ferry and rail links are not considered.

Adjacent Urban Centres are not combined together and are considered separate if:

- they are separated by an unbridged geographical barrier, such as a river, escarpment, inlet, lake or swamp;
- the Urban Centres represent separate labour markets (defined as: a GCCSA or the combined SA4s of Newcastle and Lake Macquarie and Hunter Valley exc Newcastle, as these represent a single labour market);

Discrete Aboriginal and Torres Strait Islander communities and discrete tourist resorts with a population exceeding 1,000 are considered to be Urban Centres regardless of density.

A military base or prison cannot be an Urban Centre in its own right.

State or Territory, Local Government Areas (LGA) and other administrative boundaries are disregarded in determining whether an SA1 should be included within the Urban Centre.

URBAN INFRASTRUCTURE AND LAND USE

The following infrastructure and land use are considered to be 'of urban character' if adjacent to an 'urban' SA1 as described above:

- Aboriginal and Torres Strait Islander communities
- airports with paved runways
- caravan parks
- cemeteries
- community parks and reserves
- defence facilities
- educational institutions
- electricity sub stations
- golf courses
- grain storage
- hospitals
- industrial areas (including meat works and abattoirs)
- non-agricultural commercial development
- office complexes
- parks, reserve areas, foreshore reserves that are between an urban area and the shoreline
- ports and port facilities
- prisons
- racecourses
- railway stations, bus stations and similar transport hubs
- research facilities
- sale yards
- sewerage facilities
- shopping centres
- show grounds
- sports facilities
- tourist attractions (including theme parks)
- tourist resorts
- unpaved airstrips immediately contiguous with the built up area
- waste disposal facilities.

The following infrastructures and land uses are not considered urban, unless completely surrounded by urban SA1s:

- mines
- wineries
- power stations
- dams and reservoirs
- national parks
- forests
- shooting ranges
- explosives handling and munitions areas
- defence force training grounds.

LOCALITY DESIGN CRITERIA

Localities represent smaller discrete settlements with populations of at least 200 and less than 1,000 people. The definition of Localities is more subjective than for Urban Centres as their population can be well below the optimal for a single SA1. SA1 design therefore has a significant influence on their definition. In addition, there are many different configurations of small settlements, including villages, towns, clusters of peri - urban style development, and areas with significant tourism.

Localities are defined by grouping together adjacent SA1s that meet the following ‘locality’ criteria.

SA1s are considered to meet the ‘locality’ criteria if they:

- are not included in an Urban Centre (as defined above); AND
- have at least one Urban Mesh Block*; AND
- have a population density greater or equal to 200 person per sq km.

*An Urban Mesh Block is defined as a Mesh Block with a population density of 200 persons or more per sq km.

Localities can be defined in any of the following ways:

- One or more adjacent ‘urban’ SA1s (as described in the Urban Centre criteria) with a total population of at least 200 people and less than 1,000 people.
- One or more adjacent ‘locality’ SA1s with a total population of at least 200 people (enumerated or usual residence).
- One or more adjacent SA1s representing a Discrete Aboriginal and Torres Strait Islander community with a total population between 200 and 999 (enumerated or usual residence).
- One or more adjacent SA1s with a total population of at least 200 people (enumerated or usual residence) in a concentration of housing and a discernible community centre containing community facilities, such as a sports ground, school or shops.

A Locality may contain a population exceeding 999 persons if it contains an ‘urban’ SA1 that does not meet all the criteria for an Urban Centre (see above). These are referred to as large localities.

A Locality is combined with an adjacent Urban Centre or Locality unless they are functionally a separate entity.

A military base, prison or retirement community cannot be a locality in their own right.

A locality cannot cross State or Territory boundaries.

The 200 minimum population size for Localities is set to enable users to access cross classified Census data for these areas without the resulting counts becoming too small for use. There are many small towns with populations less than 200 people that are not included as UCLs. These small towns are represented by State Government Gazetted Localities. The ABS provides Census data on these localities through the State Suburbs (SSCs), which are part of the Australian Statistical Geography Standard (ASGS) Volume 3: Non ABS Structures.

In some cases the population for existing Localities has fallen below 200. In many cases this is a result of only a small population decline which may be temporary. To avoid the situation where Localities are brought in and out of the UCL classification, these Localities are only removed from the classification if their population drops below 180. If the population of a Locality remains below 200 across two Censuses it will also be removed from the classification. As Aboriginal and Torres Strait Islander discrete community populations fluctuate more significantly, they will only be removed if the population remains below 200 across two Censuses.

REMAINDER OF STATE/TERRITORY

All SA1s in a State or Territory which are not included in an UCL, are combined into 'Remainder of State/Territory' which represents the Rural Balance of the State or Territory. Special purpose SA1s (Migratory – Offshore – Shipping and No usual address) are excluded from this and included in a separate category.

Understanding UCL Changes

UNDERSTANDING UCL CHANGES

Urban areas and their populations are dynamic; they can grow, absorb nearby centres or decline. Consequently the Urban Centres and Localities (UCLs) also need to change to enable them to continue to provide an effective statistical representation of these urban areas.

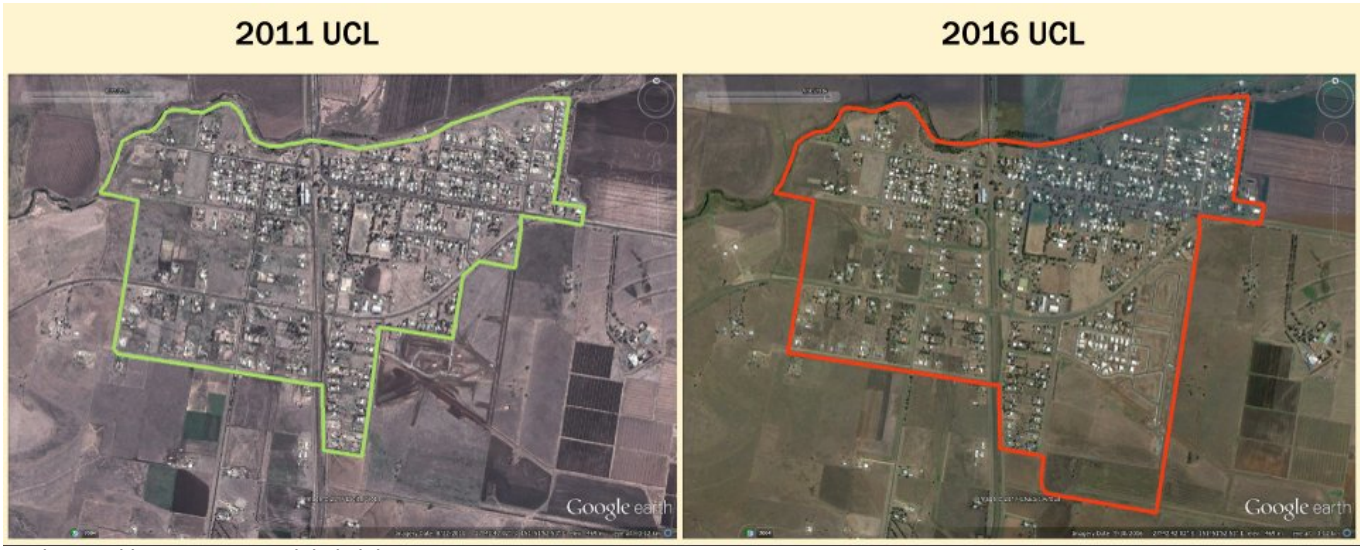
If the populations of small urban areas decline below 200 the Localities that represent these can be removed from the UCL classification. This 200 population limit is set to enable users to access cross classified Census data for these areas without the resulting counts becoming too small for use. There are rules around when the UCLs are removed from the classification and this is explained in more detail in the ‘Design of Urban Centres and Localities’ Chapter.

Some examples of the way UCLs can change are described below.

BOUNDARY CHANGES

The most common change that occurs to a UCL is that it grows in population which typically results in new housing or other infrastructure. UCL boundaries change to include this new growth. Figure 1 shows an example of this for the Urban Centre of ‘Cambooya’.

Figure 1. UCL boundary of 'Cambooya' changes to reflect growth in urban areas



Background image © 2017 DigitalGlobe

When small settlements grow in population they can become new Urban Centres or Localities.

In a small number of situations this growth and even existing urban development can occur in ways that the Statistical Area Level 1 (SA1) boundary does not closely define for a range of reasons. This can result in small areas of urban settlement being left out of the UCL or parts of non-urban land being included in the UCL.

There are four cases where significant amounts of non-urban land have been included in UCLs to ensure that the urban population is also included. This means these UCLs are now much larger in area than their actual urban extent. Users are advised to use the adjusted area for these UCLs; this is supplied in the 'UCL_association_2011_2016.csv file' included in the Downloads tab. The adjusted area has been calculated by approximating the urban extent with 2016 Mesh Blocks.

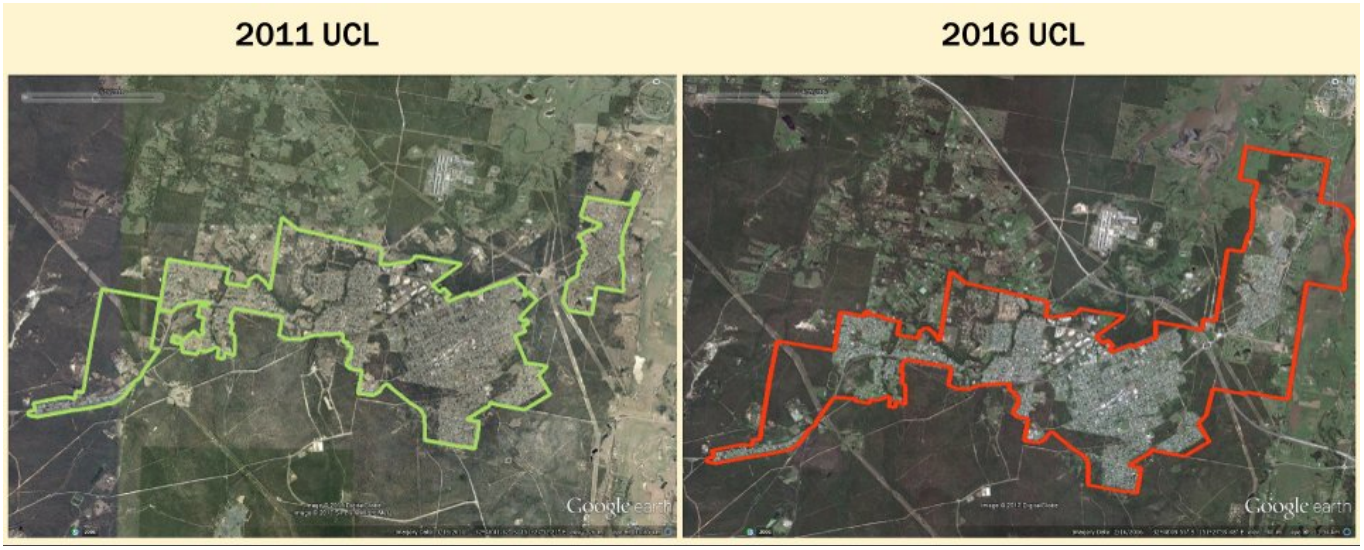
These UCLs are:

- 313003 Dalby
- 321063 Jandowae (L)
- 322013 Bell (L)
- 522020 Djarindjin - Lombadina (L)

AMALGAMATIONS

When large Urban Centres (over 20,000 people) grow they can expand in area to become adjacent to other smaller, nearby Urban Centres. When this occurs the two Urban Centres are amalgamated to become a single Urban Centre. Figure 2 shows an example of this for the Urban Centres of 'Heddon Greta' and 'Kurri Kurri - Weston'.

Figure 2. The Urban Centres of 'Heddon Greta' and 'Kurri Kurri - Weston' are amalgamated due to growth.



Background image © 2017 DigitalGlobe

In a very small number of cases the opposite can occur and Urban Centres can be de-amalgamated. This can occur as a result of

changes to SA1 boundaries which allow the Urban Centres to be defined more accurately. The most significant example of where this has occurred in 2016 is the de-amalgamation of Victor Harbor – Goolwa in South Australia.

UNDERSTANDING CHANGES

This publication includes the 'UCL_association_2011_2016.csv file' which is located in the Downloads tab. This associates 2011 UCLs with an equivalent 2016 UCL to help users understand changes and make statistical comparisons between UCLs over multiple Censuses. This table includes information on the area of the UCLs as well as the following types of changes:

- Amalgamated – When UCLs have been merged together to form one UCL.
- De-amalgamated – When UCLs have been split to create several UCLs.
- Name Change – When an UCL has changed name. This includes the addition or removal of the (L) at the end of a name to symbolise if a UCL is a Locality.
- New – When an UCL is new for 2016.
- Removed – When an UCL no longer meets the criteria and is removed from the UCL structure.

ABS Maps is an online mapping tool that allows users to visualise the boundaries and understand differences between different Australian Statistical Geography Standard (ASGS) boundaries, for example the 2011 and 2016 UCLs. This can be used in conjunction with the 'association file' to understand the UCL boundaries and any changes that have occurred.

UCL Names

UCL NAMES

The key criteria for Urban Centre and Locality (UCL) names are that they be:

- meaningful
- have a maximum of 40 characters
- unique, i.e. not shared by any other UCL in Australia.

Where an UCL represents a single dominant centre then it is named for that centre:

- Melbourne
- Sydney
- Townsville

Where an UCL represents a combination of two centres of comparable importance, it is named for both centres separated by a hyphen, the largest taking precedence:

- Shepparton - Mooroopna
- Bushfield - Woodford (L)
- Berrara - Cudmirrah (L)

Where an UCL crosses a State/Territory (S/T) border, the component parts are identified in brackets:

- Gold Coast - Tweed Heads (Gold Coast Part)
- Gold Coast - Tweed Heads (Tweed Heads Part)
- Canberra - Queanbeyan (Canberra Part)
- Canberra - Queanbeyan (Queanbeyan Part)

Where an UCL represents a region with a widely recognised name, then that name is used:

- Sunshine Coast
- Central Coast

Urban Centre names will be unique within Australia. If there are two Urban Centres with the same name, the standard State/Territory abbreviation will be added in brackets:

- Maitland (SA)
- Maitland (NSW)
- Mount Barker (SA)
- Mount Barker (WA)
- Richmond (L) (Tas.)
- Richmond (L) (Qld)

Localities have (L) appended to their names to indicate they are Localities and not Urban Centres:

- Agnes Bank (L)

- Avoca (L)
- Mount Burr (L)

In some cases Gazetted Localities and Aboriginal and Torres Strait Islander community names have been used to obtain UCL names.

UCL Coding Structure

UCL CODING STRUCTURE

An Urban Centre and Locality (UCL) is identifiable by a 6 digit fully hierarchical code. This comprises a State or Territory (S/T), Section of State (SOS), Section of State Range (SOSR) and an UCL identifier. An UCL identifier is only unique if it is preceded by the State or Territory, SOS and SOSR identifiers. It is therefore possible to identify the population range to which the UCL belongs from the component Section of State and Section of State Range codes. This was not possible under the old Australian Standard Geographical Classification (ASGC) UCL coding system.

For example Jervis Bay (L) in Other Territories:

922002 Jervis Bay (L)

S/T	SOS	SOSR	UCL	UCL Name
9	2	2	002	Jervis Bay (L)

For example Remainder of State/ Territory in Tasmania:

631777 Remainder of State/Territory (Tas.)

S/T	SOS	SOSR	UCL	UCL Name
6	3	1	777	Remainder of State/Territory (Tas.)

UCL SPECIAL PURPOSE CODES

Two UCLs are defined in each State or Territory for that part of a population which cannot be meaningfully assigned to a geographically defined region:

- Migratory - Offshore - Shipping
- No usual address

For example Migratory – Offshore – Shipping in New South Wales:

179997 Migratory – Offshore – Shipping

S/T	SOS	SOSR	UCL	UCL Name
1	7	9	997	Migratory – Offshore – Shipping (NSW)

For example No usual address in Victoria:

299994 No usual address (Vic.)

S/T	SOS	SOSR	UCL	UCL Name
2	9	9	994	No usual address (Vic.)

Section of State (SOS) and Section of State Range (SOSR)

SECTION OF STATE (SOS) AND SECTION OF STATE RANGE (SOSR)

PURPOSE OF SOS AND SOSR

The Australian Statistical Geography Standard (ASGS) Section of State (SOS) and Section of State Range (SOSR) Structures define broad classes of urban and rural areas. This is done by grouping the Urban Centres and Localities (UCLs) into broad classes based on population sizes of Urban Centres and Localities within each State. SOSR provides a more detailed classification than SOS. This enables statistical comparisons of differently sized urban centres and the balancing 'rural areas'.

Design of SOS and SOSR

DESIGN OF SOS AND SOSR

Section of State (SOS) and Section of State Range (SOSR) are created by grouping together Urban Centres and Localities (UCLs) into broad classes based on population size. The population sizes are based on the 2016 Census of Population and Housing.

Both SOS and SOSR cover the whole of Australia without gaps or overlaps. States and Territories (S/T) do not necessarily have all SOS or SOSR classes.

SOS provides the broadest definition of ‘urban’ and ‘rural’ Australia. It separates each State or Territory into up to 4 classes of Urban or Rural as described in table 2 below.

TABLE 2: SOS CLASSIFICATION

SOS Identifiers and Names

Identifier	Name	Definition	Urban or Rural
0	Major Urban	Major Urban represents a combination of all Urban Centres with a population of 100,000 or more	Urban
1	Other Urban	Other Urban represents a combination of all Urban Centres with a population between 1,000 and 99,999	Urban
2	Bounded Locality (a)	Bounded Localities represents a combination of all Localities	Rural
3	Rural Balance	Rural Balance represents the Remainder of State/Territory	Rural

(a) Bounded Locality can include some large localities with a population greater than 1000.

SOSR further disaggregates the SOS classification to provide a more detailed breakup of ‘urban’ and ‘rural’. It separates each State or Territory into up to 11 classes of Urban or Rural as described in table 3 below. The SOS names are shown alongside these classes to highlight the hierarchical nature of the classifications.

TABLE 3: SOSR CLASSIFICATION

SOSR Identifiers and Names

SOSR Identifier	SOSR Name	SOS Name
01	1 million or more	Major Urban
02	250,000 to 999,999	Major Urban
03	100,000 to 249,999	Major Urban
11	50,000 to 99,999	Other Urban
12	20,000 to 49,999	Other Urban
13	10,000 to 19,999	Other Urban
14	5,000 to 9,999	Other Urban
15	1,000 to 4,999	Other Urban
21	500 or more (a)	Bounded Locality
22	200 or 499	Bounded Locality
31	Remainder of State / Territory	Rural Balance

(a) Bounded Localities in this SOSR can include some large localities with a population greater than 1000.

Understanding SOS and SOSR Changes

UNDERSTANDING SOS AND SOSR CHANGES

The allocation of Urban Centres and Localities (UCL) to Section of State (SOS) and Section of State Range (SOSR) will change as the population of the UCLs change between Censuses.

This change in SOS and SOSR in relation to the UCLs is documented in the ‘UCL_associatation_2011_2016.csv file’ included in the Downloads tab.

SOS and SOSR Name and Coding Structure

SOS AND SOSR NAMES AND CODING STRUCTURE

SOS AND SOSR NAMES

Section of State (SOS) and Section of State Range (SOSR) names are not unique in Australia.

SOS and SOSR names are outlined in the previous section in ‘Design of SOS and SOSR’.

SOS CODING STRUCTURE

A SOS is identifiable by a 2 digit fully hierarchical code. These are outlined in the examples below.

The SOS code comprises a State or Territory (S/T) and SOS identifier. A SOS identifier is only unique if it is preceded by the State or Territory identifier.

For example Major Urban in Victoria:

20 Major Urban

S/T	SOS identifier	SOS Name
2	0	Major Urban

For example Rural Balance in Western Australia:

53 Rural Balance

S/T	SOS identifier	SOS Name
5	3	Rural Balance

SOS Special Purpose Codes

Two SOS are defined in each State or Territory for that part of a population which cannot be meaningfully assigned to a geographically defined region:

- Migratory – Offshore – Shipping
- No usual address

For example Migratory – Offshore – Shipping in Tasmania:

67 Migratory – Offshore – Shipping (Tas.)

S/T	SOS identifier	SOS Name
6	7	Migratory – Offshore – Shipping (Tas.)

For example No usual address in New South Wales:

19 No usual address (NSW)

S/T	SOS identifier	SOS Name
1	9	No usual address (NSW)

SOSR CODING STRUCTURE

A SOSR is identifiable by a 3 digit fully hierarchical code. This comprises State or Territory, SOS and SOSR identifiers. A SOSR identifier is only unique if it is preceded by the State or Territory and SOS identifiers. See ‘Design of SOS and SOSR’ for the SOS and SOSR identifiers used for the different SOSR population ranges.

The examples below show how the SOSR codes are assigned to the SOSR Name.

For example SOSR of ‘1 million or more’ in Western Australia:

501 ‘1 million or more’

S/T	SOS	SOSR	SOSR Name
5	0	1	1 million or more

For example SOSR of ‘Remainder of State/Territory’ in South Australia:

431 Remainder of State/Territory

S/T	SOS	SOSR	SOSR Name
4	3	1	Remainder of State / Territory

SOSR Special Purpose Codes

Two SOSR are defined in each State or Territory for that part of a population which cannot be meaningfully assigned to a geographically defined region:

- Migratory – Offshore – Shipping
- No usual address

For example Migratory – Offshore – Shipping in Queensland:

379 Migratory – Offshore – Shipping (Qld)

S/T	SOS	SOSR	SOSR Name
3	7	9	Migratory – Offshore – Shipping (Qld)

For example No usual address in the Australian Capital Territory:

899 No usual address (ACT)

S/T	SOS	SOSR	SOSR Name
8	9	9	No usual address (ACT)

Significant Urban Area (SUA)

SIGNIFICANT URBAN AREA (SUA)

PURPOSE OF SUA

The Significant Urban Area (SUA) structure of the Australian Statistical Geography Standard (ASGS) represents significant towns and cities of 10,000 people or more. They are based on the Urban Centres and Localities (UCLs) but are defined by the larger Statistical Areas Level 2 (SA2s). A single SUA can represent either a single Urban Centre or a cluster of related Urban Centres. Using SA2s to define SUAs ensures a wider range of more regularly updated data is available for these areas (such as Estimated Resident Population), compared to UCLs where only Census data is available.

Design of SUA

DESIGN OF SUA

Significant Urban Areas (SUAs) are defined by combining one or more adjacent Statistical Areas Level 2 (SA2s) that include one or more Urban Centres using the following criteria:

- The SUA should contain at least one Urban Centre defined by the Urban Centre and Locality (UCL) classification with an urban population of 7,000 people or more.
- The SUA should have an aggregate Urban Centre population of 10,000 people or more.
- The SA2s included in the SUA should contain related Urban Centres that are less than 5km apart. This is measured along the most direct sealed road route between the edges of the Urban Centre boundaries.
- The SA2s included in the SUA should all be within the same Labour Market (defined as: a Greater Capital City Statistical Area (GCCSA) or the combined Statistical Area Level 4s (SA4s) of Newcastle and Lake Macquarie and Hunter Valley exc Newcastle as these represent a single labour market).

SA2s not in an SUA are combined to form a 'Not in any significant urban area' region for each State or Territory (S/T). This means that SUAs cover the whole of Australia without gaps or overlaps.

The SUA structure does not aggregate to State or Territory, as SUAs may cross State or Territory boundaries.

Understanding SUA Changes

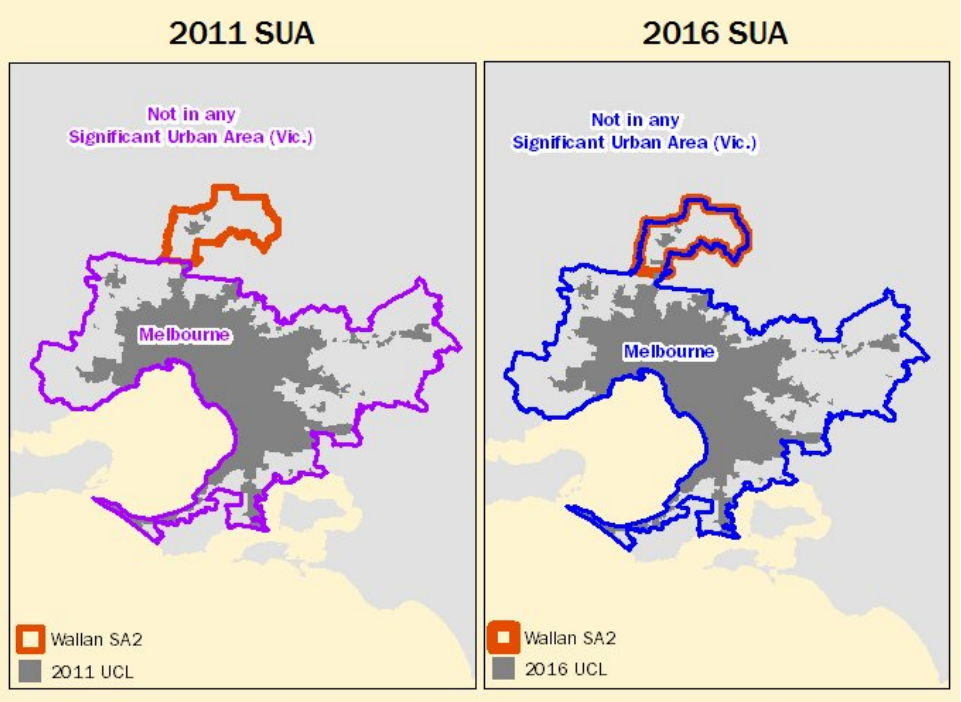
UNDERSTANDING SUA CHANGES

Large urban areas and their populations are dynamic; they can grow, absorb nearby centres or decline. Consequently the Significant Urban Areas (SUAs) also change so that they continue to provide an effective statistical representation of these urban areas. Some examples of the way SUAs can change are described below.

Because SUAs represent larger Urban Centres their change is dominated by growth. In many cases this growth is contained within the Statistical Area Level 2 (SA2) boundaries that are used to define the SUAs. The SA2s are deliberately designed to include adjacent peri-urban settlement around towns and this means the urban population within both the SA2 and the SUA can grow to some degree without any changes to the boundaries needing to occur.

When small Urban Centres just outside an SUA grow to within 5 kilometres of the Urban Centre within the SUA, this causes the adjacent SA2 to be added to the SUA. This results in a change to the boundaries of the SUA as shown in the example below, where the Melbourne SUA has grown to include Wallan SA2 (Figure 3).

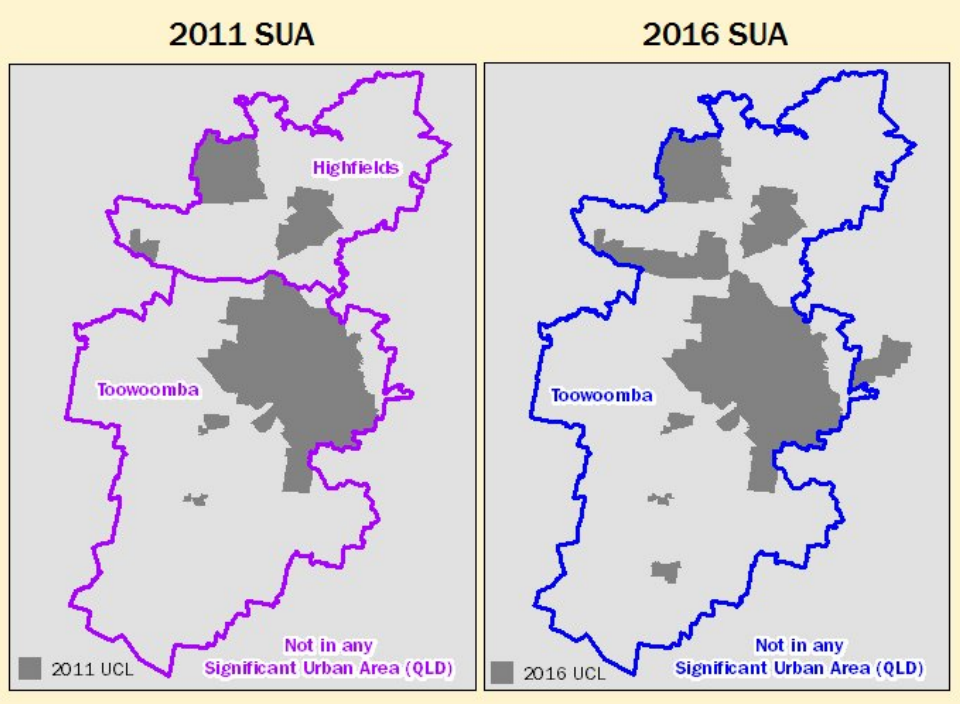
Figure 3. The SA2 of Wallan is added to the Melbourne SUA due to the urban growth around Wallan.



As the populations of Urban Centres grow to be 10,000 people or more new SUAs are created. This is one of the most common types of change in the SUA classification.

As the largest SUAs grow their urban settlement encroaches on other nearby or adjacent SUAs. When the Urban Centres that the SUAs represent are within 5 kilometres the SUAs are amalgamated into a single SUA. An example of this is shown in figure 4 below.

Figure 4. The SUAs of Toowoomba and Highfields are amalgamated into a single SUA in 2016.



These amalgamations of SUAs are typically how the boundaries of the larger SUAs change. Smaller changes to the SUA boundaries can result from changes to the SA2s that are used to represent the SUA.

This publication includes the 'SUA_association_2011_2016.csv file' which is located in the Downloads tab. This associates 2011 SUAs with an equivalent 2016 SUA to help users understand changes and make statistical comparisons between SUAs over multiple Censuses.

This table includes information on the area of the SUAs as well as the following types of changes:

- Amalgamated – When SUAs have been merged together to form one SUA.
- Name Change – When an SUA has changed name.
- New – When an SUA is new for 2016.

ABS Maps is an online mapping tool that allows users to visualise the boundaries and understand differences between different Australian Statistical Geography Standard (ASGS) boundaries, for example the 2011 and 2016 SUAs. This can be used in conjunction with the Association file to understand the SUA boundaries and any changes that have occurred.

SUA Names

SUA NAMES

Key criteria for the Significant Urban Area (SUA) names are that they be:

· meaningful
· max of 40 characters
· must be unique within Australia.

A single Statistical Area Level 2 (SA2) SUA will be named after the Urban Centre:

· Alice Springs
· Albany
· Mount Gambier

A multiple SA2 SUA will be named after the largest Urban Centre it contains:

· Toowoomba

Where a SUA represents a combination of two centres of comparable importance, it is named for both:

· Gladstone – Tannum Sands
· Kalgoorlie – Boulder

Where a SUA cross a State or Territory (S/T) border, it is named after the largest centre on each side:

- Gold Coast – Tweed Heads
- Canberra – Queanbeyan

Where an SUA represents a region with a widely recognised name, it is named for that region:

- Sunshine Coast

SUA Coding Structure

SUA CODING STRUCTURE

A Significant Urban Area (SUA) is identifiable by a unique 4 digit non-hierarchical code, with the first digit identifying the State or Territory (S/T). Those SUAs which cross state boundaries are given the State or Territory identifier for the State or Territory which contains the largest Centre. The regions representing those parts of a State or Territory 'Not in a significant urban area' have codes ending in 000.

The codes used for the 2016 SUAs may not match those used in 2011 as codes are assigned alphabetically within each State or Territory for each Australian Statistical Geography Standard (ASGS) edition, and SUA names may have change since 2011.

For example:

S/T identifier	SUA identifier	SUA Name
5	009	Perth
3	006	Gold Coast - Tweed Heads
8	000	Not in a Significant Urban Area (ACT)

About this Release

The Australian Statistical Geography Standard (ASGS) provides users with an integrated set of standard regions that they can use to analyse and integrate statistics produced by the ABS and other organisations.

Volume 4 outlines the Urban Centre and Localities (UCL), Section of State (SOS) and Significant Urban Area (SUA) Structures of the ASGS. The UCL structure provides a definition of urban and rural areas across Australia built up from Statistical Areas Level 1 (SA1). The SOS groups these UCLs into broad classes to enable the analysis and comparison of differently sized urban areas across States and Territories or Australia. SUAs define concentrations of urban development with a population of 10,000 people or more built up from Statistical Areas Level 2 (SA2). The use of SA2s ensures that a wider range of regularly updated data, including Estimated Resident Population and Building Approvals are available for these larger urban areas in addition to Census data.

These areas are redefined every 5 years using the most recent Census of Population and Housing data to measure population and dwelling density in order to capture changes in urban settlement and infrastructure. Digital boundaries and allocation tables for these regions can be obtained as downloads within this product.

Explanatory Notes

Metadata for Digital Boundary Files

METADATA FOR DIGITAL BOUNDARY FILES

Australian Statistical Geography Standard (ASGS) Volume 4 – Significant Urban Areas, Urban Centres and Localities, Section of State (cat no. 1270.0.55.004)

Date of Publication/ Date Stamp : 09 October 2017

Presentation Format: Digital boundaries

CUSTODIAN

Custodian: Australian Bureau of Statistics (ABS)

DESCRIPTION

Abstract:

The Australian Statistical Geography Standard (ASGS) brings together in one framework all of the regions which the ABS and many others organisations use to collect, release and analyse geographically classified statistics. The ASGS ensures that these statistics are comparable and geospatially integrated and provides users with an coherent set of standard regions so that they can access, visualise, analyse and understand statistics. The 2016 ASGS will be used for the 2016 Census of Population and Housing and progressively introduced into other ABS data collections. The ABS encourages the use of the ASGS by other organisations to improve the comparability and usefulness of statistics generally, and in analysis and visualisation of statistical and other data.

This publication, **Australian Statistical Geography Standard (ASGS) Volume 4 – Significant Urban Areas, Urban Centres and Localities, Section of State** (cat no. 1270.0.55.004), deals with the ASGS Urban Centre and Localities Structure (UCL), Section of State Structure (SOS) and the Significant Urban Areas Structure (SUA). This product contains several elements including the ASGS manual, allocation tables and the digital boundaries current for the ASGS Edition 2016 (date of effect 1 July 2016).

The digital boundaries for Volume 4 of the ASGS are the region types for the Urban Centres and Localities Structure, Section of State Structure and Significant Urban Areas Structure. These region types are:

- Urban Centres and Localities (UCL)
- Section of State (SOS)
- Section of State Range (SOSR)
- Significant Urban Areas (SUA)

File Nomenclature:

File names have the format <file type>_<2016>_<AUST> where:

< file type> represents the type of boundaries in each file

UCL = Urban Centres and Localities
SOS = Section of State
SOSR = Section of State Range
SUA = Significant Urban Areas

< 2016> represents 2016 the year of the Australian Statistical Geography Standard (ASGS) Edition

< AUST> indicates the data covers all of Australia as defined in the ASGS manual

Within the files, the States and Territories are identified by unique one digit codes.

State and Territory Codes and Names

Code	S/T
1	New South Wales
2	Victoria
3	Queensland
4	South Australia
5	Western Australia
6	Tasmania
7	Northern Territory
8	Australian Capital Territory
9	Other Territories

File Attributes:

All tables show file type, file name, spatial unit field and the data type.

File Type: Urban Centres and Localities (UCL)

File Name (s): UCL_2016_AUST

Count	Field (mid/mif, TAB and GeoPackage)	Field (ESRI .shp)	Data Type	Length
1	UCL_CODE_2016	UCL_CODE16	Character	6
2	UCL_NAME_2016	UCL_NAME16	Character	50
3	SOSR_CODE_2016	SSR_CODE16	Character	3
4	SOSR_NAME_2016	SSR_NAME16	Character	50
5	SOS_CODE_2016	SOS_CODE16	Character	2
6	SOS_NAME_2016	SOS_NAME16	Character	50
7	STATE_CODE_2016	STE_CODE16	Character	1
8	STATE_NAME_2016	STE_NAME16	Character	50
9	AREA_ALBERS_SQKM	AREASQKM16	Float	

File Type: Section of State Range (SOSR)

File Name (s): SOSR_2016_AUST

Count	Field (mid/mif, TAB and GeoPackage)	Field (ESRI .shp)	Data Type	Length
1	SOSR_CODE_2016	SSR_CODE16	Character	3
2	SOSR_NAME_2016	SSR_NAME16	Character	50
3	SOS_CODE_2016	SOS_CODE16	Character	2
4	SOS_NAME_2016	SOS_NAME16	Character	50
5	STATE_CODE_2016	STE_CODE16	Character	1
6	STATE_NAME_2016	STE_NAME16	Character	50
7	AREA_ALBERS_SQKM	AREASQKM16	Float	

File Type: Section of State (SOS)

File Name (s): SOS_2016_AUST

Count	Field (mid/mif, TAB and GeoPackage)	Field (ESRI .shp)	Data Type	Length
1	SOS_CODE_2016	SOS_CODE16	Character	2
2	SOS_NAME_2016	SOS_NAME16	Character	50
3	STATE_CODE_2016	STE_CODE16	Character	1
4	STATE_NAME_2016	STE_NAME16	Character	50
5	AREA_ALBERS_SQKM	AREASQKM16	Float	

File Type: Significant Urban Areas (SUA)

File Name (s): SUA_2016_AUST

Count	Field (mid/mif, TAB and GeoPackage)	Field (ESRI .shp)	Data Type	Length
1	SUA_CODE_2016	SUA_CODE16	Character	4
2	SUA_NAME_2016	SUA_NAME16	Character	50
9	AREA_ALBERS_SQKM	AREASQKM16	Float	Float

XML METADATA FILE

The compressed download files include geospatial metadata data for each region type in Extensible Markup Language (XML) format. The geospatial metadata conforms to International Organisation for Standardization (ISO) geospatial metadata standard, ISO 19115:2003, and the associated XML implementation schema specified by ISO 19139:2012.

DATA CURRENCY

Date of Effect: 12 July 2016

DATASET STATUS

Progress: Completed dataset

Maintenance and Update Frequency: No further updates for these boundaries planned. The ASGS will be revised in 2021.

ACCESS

Stored Data Format:

Digital as separate files for each level of the UCL, SOS, SOSR and SUA of the ASGS 2016.

Available Format:

The digital boundary files are in MapInfo TAB format (.TAB), MapInfo Interchange Format (.MID .MIF), Geopackage and ESRI Shapefile (.shp) format.

Spatial Representation Type:

Vector

Access Constraints:

Datum:

Geocentric Datum of Australia 1994 (GDA94)

The digital boundary files have the datum specified as 116 (GDA94). Users of MapInfo 6.0 or later are able to load data sets based on GDA94 directly, without transformation. Earlier versions of MapInfo cannot interpret GDA94 correctly and there may be alignment problems between data sets based on this datum and other earlier datums.

Projection:

Geographical (i.e. Latitudes and Longitudes)

Geographic Extent:

Geographic Australia.

Extent - Geographic Bounding Box:

North Bounding Latitude: -8
South Bounding Latitude: -45
West Bounding Latitude: 96
East Bounding Latitude: 169

DATA QUALITY

Lineage:

Mesh Block boundaries were created using various sources including the PSMA digital datasets and ABS boundaries, zoning information from state planning agencies and imagery.

Positional Accuracy:

Positional accuracy is an assessment of the closeness of the location of the spatial objects in relation to their true positions on the earth's surface.

The positional accuracy includes:

- a horizontal accuracy assessment
- a vertical accuracy assessment

Positional accuracy for ABS boundaries is dependent on the accuracy of the features they have been aligned to. ABS boundaries are aligned to a number of layers supplied by PSMA with an accuracy of +/-50 mm. PSMA layers and their positional accuracy are as follows:

- Transport and Topography

+/- 2 meters in urban areas and +/- 10 meters in rural and remote areas

- CadLite

+/- 2 meters in urban areas and +/- 10 meters in rural and remote areas

- Administrative Boundaries

Derived from the cadastre data from each Australian State and Territory jurisdiction.

- Greenspace and Hydrology

90% of well-defined features are within 1mm (at plot scale) of their true position, eg 1:500 equates to +/- 0.5metre and 1:25,000 equates to +/- 25 metres. Relative spatial accuracy of these themes reflects that of the jurisdictional source data. The accuracy is +/- 2 metres in urban areas and +/- 10 metres in rural and remote areas. No "shift" of data as a means of "cartographic enhancement" to facilitate presentation has been employed for any real world feature.

Attribute Accuracy:

All codes and labels for all levels within the ASGS UCLs, SOS / SOR and SUA are fully validated.

Logical Consistency:

Regions are closed polygons. Attribute records without spatial objects have been included in the data for administrative purposes.

Completeness:

All levels of the UCLs, SOS / SOSR and SUA within the 2016 ASGS are represented.

CONTACT INFORMATION

Contact Organisation: Australian Bureau of Statistics

Contact: For further information email <client.services@abs.gov.au> or contact the National Information and Referral Service (NIRS) on 1300 135 070.

Information about CSV Files

INFORMATION ABOUT CSV FILES

The product **Australian Statistical Geography Standard (ASGS) Volume 4 – Significant Urban Areas, Urban Centres and Localities, Section of State** (cat no. 1270.0.55.004) contains comma-separated (.csv) files. These files list the codes, labels and hierarchies for the regions within the ASGS Urban Centre Localities (UCL) / Section of State (SOS) Structure and the ASGS Significant Urban Areas (SUA) Structure.

The .csv files are located in the Downloads Tab of this publication.

There are four .csv files listing the geographical hierarchies for the following regions:

- Urban Centre and Locality (UCL)
- Section of State Range (SOSR)
- Section of State (SOS)
- Significant Urban Area (SUA)

There are two association .csv files to help users understand the changes between the 2011 and 2016 editions of the following regions:

- Urban Centre and Locality (UCL)
- Significant Urban Area (SUA)

FILE CONTENT

UCL_2016_AUST.csv contains the following fields:

- UCL_CODE_2016
- UCL_NAME_2016
- SOSR_CODE_2016
- SOSR_NAME_2016
- SOS_CODE_2016
- SOS_NAME_2016
- STATE_CODE_2016
- STATE_NAME_2016
- AREA_ALBERS_SQKM (of the UCLs)

This file may be used to determine how the UCLs aggregate to SOSR, SOS and State and Territory.

SA1_UCL_SOSR_SOS_2016_AUST.csv contains the following fields:

- SA1_MAINCODE_2016
- SA1_7DIGITCODE_2016
- UCL_CODE_2016
- UCL_NAME_2016
- SOSR_CODE_2016
- SOSR_NAME_2016
- SOS_CODE_2016
- SOS_NAME_2016
- STE_CODE_2016
- STE_NAME_2016
- AREA_ALBERS_SQKM (of the SA1s)

This file can be used to determine how SA1s aggregate directly to the UCLs, SOSR, SOS and State and Territory.

SUA_2016_AUST.csv contains the following fields:

- SUA_CODE_2016
- SUA_NAME_2016
- AREA_ALBERS_SQKM (of the SUAs)

This file may be used to list all 2016 SUAs in Australia. The file does not include State and Territory information as SUAs may cross State and Territory borders.

SA2_SUA_2016_AUST.csv contains the following fields:

- SA2_MAINCODE_2016
- SA2_5DIGITCODE_2016
- SA2_NAME_2016
- SUA_CODE_2016
- SUA_NAME_2016
- AREA_ALBERS_SQKM (of the SA2s)

This file can be used to determine how SA2s aggregate directly to Significant Urban Areas.

This publication includes the 'SUA_association_2011_2016.csv file'. This associates 2011 SUAs with an equivalent 2016 SUA to help users understand changes and make statistical comparisons between SUAs over multiple Censuses. This table includes information on the area of the SUAs as well as the following types of changes:

- Amalgamated – When SUAs have been merged together to form one SUA.
- Name Change – When an SUA has changed name.
- New – When an SUA is new for 2016.

SUA_association_2011_2016.csv contains the following fields:

- SUA_CODE_2011
- SUA_NAME_2011
- AREA_ALBERS_SQKM_2011
- SUA_CODE_2016
- SUA_NAME_2016
- AREA_ALBERS_SQKM_2016
- Reason for Change

This publication includes the 'UCL_association_2011_2016.csv file'. This associates 2011 UCLs with an equivalent 2016 UCL to help users understand changes and make statistical comparisons between UCLs over multiple Censuses. This table includes information on the area of the UCLs as well as the following types of changes:

- Amalgamated – When UCLs have been merged together to form one UCL.
- De-amalgamated – When UCLs have been split to create several UCLs.
- Name Change – When an UCL has changed name. This includes the addition or removal of the (L) at the end of a name to symbolise if a UCL is a Locality.
- New – When an UCL is new for 2016.
- Removed – When an UCL no longer meets the criteria and is removed from the UCL structure.

UCL_association_2011_2016.csv contains the following fields:

- UCL_CODE_2011
- UCL_NAME_2011
- SOSR_CODE_2011
- SOSR_NAME_2011
- SOS_CODE_2011
- SOS_NAME_2011
- AREA_ALBERS_SQKM_2011
- UCL_CODE_2016
- UCL_NAME_2016
- SOSR_CODE_2016
- SOSR_NAME_2016
- SOS_CODE_2016
- SOS_NAME_2016
- AREA_ALBERS_SQKM_2016
- Adjusted area *
- Reasons for Change

Abbreviations

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
ASGS	Australian Statistical Geography Standard
GCCSA	Greater Capital City Statistical Area
MB	Mesh Block
NSW	New South Wales
NT	Northern Territory
OT	Other Territories
QLD	Queensland
SA	South Australia
SA1	Statistical Area Level 1
SA2	Statistical Area Level 2
SA3	Statistical Area Level 3
SA4	Statistical Area Level 4
SOS	Section of State
SOSR	Section of State Range
SSC	State Suburb
S/T	State or Territory
SUA	Significant Urban Area
Tas.	Tasmania
UCL	Urban Centre and Locality
Vic.	Victoria
WA	Western Australia